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PATENT APPLICATION

#62
JRP
12/17/97

THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Richard HERTZOG et al.

Application No: 08/601,879 Group Art Unit: 1205

Filed: February 15, 1996 Examiner: J. Reamer

For: DECOMPOSITION OF CUMENE OXIDATION PRODUCT

JUL 24

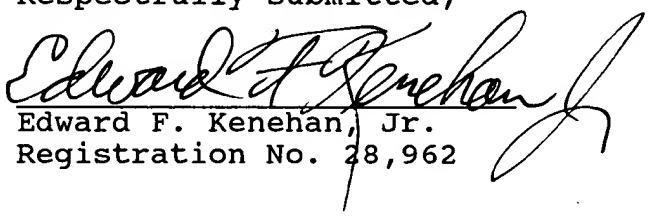
SUBMISSION OF APPELLANT'S BRIEF ON APPEAL

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Submitted herewith please find an original and two copies of Appellant's Brief on Appeal. A check for the statutory fee of $300.00 is attached. Authorization is also given to charge or credit any difference or overpayment to Deposit Account No. 19-4880. A duplicate copy of this paper is attached.

Respectfully submitted,



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Date: June 30, 1997

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

#61
1 of 3
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see paper #62
for fee

In re the Application of

Richard HERTZOG et al.

Application No: 08/601,879 Group Art Unit: 1205

Filed: February 15, 1996 Examiner: J. Reamer

For: DECOMPOSITION OF CUMENE OXIDATION PRODUCT

APPEAL BRIEF

Fairfax, Virginia 22037

Honorable Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

The decision of the Examiner in the Official Action, mailed February 23, 1994, made final, has been appealed.

REAL PARTY IN INTEREST

The real party in interest is Allied-Signal, Inc., i.e. the assignee of the present application.

RELATED APPEALS AND INTERFERENCES

There are no currently pending related appeals or interferences. An appeal (Appeal No. 91-0763) was taken in parent application Serial No. 07/297,333. However, the claims presently on appeal define different subject matter than the claims involved in Appeal No. 91-0763.

After the decision in Appeal No. 91-0763, the claims presently on appeal were substantially copied from U.S. Patent No. 5,254,751 for the purposes of provoking an interference. However, this interference has not been declared.

U.S. Patent No. 5,254,751 is now the subject of a merged reexamination/reissue proceeding.

STATUS OF CLAIMS

The claims on appeal are claims 9-14, and 16-18 and 20, i.e., all of the claims presently in the application, all of which are rejected. The claims on appeal are recited in an Appendix to this Brief.

STATUS OF AMENDMENTS

Subsequent to the Final Rejection, in an Amendment, filed December 30, 1996, claim 11 was amended to recite that the amount of excess acetone is 40 percent relative to the acetone produced during the reaction. As indicated in the Advisory Action, mailed January 30, 1997, this amendment was entered upon the filing of the present appeal.

A Supplemental Amendment was filed on March 7, 1997, cancelling claims 1, 2, 7, 8, 15, 19 and 21-28. Appellants have not received written confirmation that this Supplemental Amendment

has been entered. However, for the purposes of this Appeal it is assumed that this Supplemental Amendment has been entered.

SUMMARY OF THE INVENTION

As discussed on page 4, lines 8-13 of the present specification, the present invention relates to the decomposition of cumene oxidation product to phenol, acetone and alpha-methylstyrene (AMS). In particular, as pointed out in the passage of the present specification on page 4, lines 14-18, the decomposition reaction takes place in the presence of recycled acetone.

THE ISSUE

The issue for review is whether claims 9-14 and 16-18 and 20 are unpatentable under 35 USC 103 over the disclosure of the Sifniades et al U.S. Patent No. 4,358,618 in combination with the disclosure of the Anderson et al U.S. Patent No. 4,207,264 and the disclosure of the Barilli British Patent No. 1,202,687, for the particular reasons set forth in the Final Rejection.

THE REJECTION

The claims on appeal are rejected under 35 USC 103 for the reasons given in the Final Rejection. More particularly, in the Final Rejection, the following is stated:

Claims 1, 2, 7 and 8 to 28 remain rejected under 35 U.S.C. § 103 as being unpatentable over Sifniades in combination with Anderson et al and Barcilli, for the reasons repeatedly made of record. The arguments raised in the two preliminary amendments filed on May 2 and June 13, 196 are mere repeating of the same arguments raised in previous responses. The points raised in the declaration are likewise not persuasive since they do not present any additional data or comparison with the prior art processes. The reasons that the combination of these cited references is considered to be proper have been set forth many times in the record and are not considered to be in error. The inclusion of claims 9 to 25 in the rejection is considered to be proper, even though there claims are presented to invoke an interference, since these claims are read in light of the instant disclosure and not the disclosure of the patent to Zakoshansky. These claims when read in light of the instant disclosure are not seen to overlap the claims of Zakoshansky. The limitations presented by newly added claims 26 to 28 are not considered to be patentable since the acetone limitation of 40 to 60 % is within the range taught by the prior art.

GROUPING OF THE CLAIMS

Insofar as the grounds of rejection specifically as set forth in the Final Rejection are concerned and for the purposes of the present appeal only, claims 9-14, 16-18 and 20 should each be considered individually. These claims should each stand or fall with each corresponding claim of Reexamination Serial No. 90/004314 (hereinafter SN 90/004314). More particularly, this correspondence is as follows:

PRESENT CLAIM	REEXAM CLAIM
9	1
10	4
11	7
12	8
13	9
14	10
16	32
17	33
18	34
20	38

ARGUMENT

The rejection under 35 USC 103 should be reversed.

Claims 9-14, 16-18 and 20 were substantially copied from the Zakoshansky patent. Accordingly, the Patent and Trademark Office has already determined that these claims are patentable to Zakoshansky.

In the Official Action, the rejection of these claims is said to be made for "reasons of record". However, the "reasons of record" pertain only to the disclosures of the Sifniades et al and Barilli patent. The Anderson et al patent is not discussed in the decision in Appeal No. 91-0763. It will be noted that the

Sifniades et al and Barilli patents are specifically of record on the face of the Zakoshansky patent. Therefore, the Patent and Trademark Office has already determined that the subject matter of the present claims 9-14, 16-18 and 20 is patentable over the disclosures of the Sifniades et al and Barilli patents.

Since the Patent and Trademark Office has already determined these claims 9-14, 16-18 and 20 are patentable to Zakoshansky, the Board should give full faith and credit to the earlier decision of the Patent and Trademark Office to issue the Zakoshansky patent and find claims 9-14, 16-18 and 20 allowable to the present applicant. MPEP 704 and MPEP 706.04.

In the final rejection, the following is also stated:

> "The inclusion of claims 9 to 25 in the rejection is considered to be proper, even though there claims are presented to invoke an interference, since these claims are read in the light of the instant disclosure and not the disclosure of the patent to Zakoshansky. These claims when read in the light of the instant disclosure are not seen to overlap the claims of Zakoshansky."

Issue is respectfully taken with the statement that the present claims do not overlap the claims of the Zakoshansky patent. The present claims 9-14, 16-18 and 20 clearly do overlap and interfer with claims of the Zakoshansky patent. The Examiner has never previously made this allegation on the record. Nowhere does the

Examiner point out any line of demarcation between the respective claims.

The remainder of the above-quoted statement is not understandable.

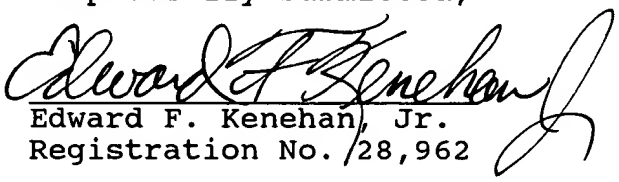
The terms of the present claims 9-14, 16-18 and 20 are regarded to be sufficiently clear as to not require reference to a specification for interpretation. MPEP 608.01.

In the absence of such a showing, the Board should give full faith and credit to the earlier decision of the Patent and Trademark Office to issue the Zakoshansky patent and find claims 9-14, 16-18 and 20 allowable to the present applicant. MPEP 704 and 706.04.

CONCLUSION

The rejection under 35 USC 103 should be reversed.

Respectfully submitted,



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Date: June 30, 1997

APPENDIX

9. An improved method for the decomposition of cumene hydroperoxide by acidic catalyst to phenol and acetone wherein the improvement comprises decomposing cumene hydroperoxide in a non-isothermal manner in the presence of excess acetone in the amount of 10 to 100 percent acetone relative to the amount of acetone produced during the reaction.

10. The method in accordance with claim 9 wherein the cumene hydroperoxide is decomposed in a multiplicity of separate sequential reactors each with a controlled temperature range.

11. The method in accordance with claim 9 wherein the acidic catalyst is sulphuric acid and wherein the amount of excess acetone is 40 percent acetone relative to the acetone produced during the reaction.

12. The method in accordance with claim 9 wherein the catalyst is in a concentration of from about 30 to 500 ppm of the weight of cumene hydroperoxide decomposition product.

13. The method in accordance with claim 9 wherein the temperature of the cumene hydroperoxide decomposition is about 50° to 90°C.

14. The method in accordance with claim 9 wherein the quantity of cumene hydroperoxide remaining after decomposition is from about 0.2 to 3.0 wt% of the total weight of the decomposition products.

16. An improved method for enhancing the decomposition of cumene hydroperoxide and producing cumene hydroperoxide decomposition products therefrom wherein the improvement comprises recycling the cumene hydroperoxide decomposition products in a cumene hydroperoxide back-mixed decomposition reactor in sufficient quantity whereby selectivity is higher and safety of the process is improved.

17. The method in accordance with claim 16 wherein additional acetone is added to the cumene hydroperoxide decomposition products in an amount of from about 10 to about 100 percent of the amount of acetone produced during cumene hydroperoxide decomposition reaction.

18. The method in accordance with claim 17 wherein additional water is added to the cumene hydroperoxide decomposition products to a level not greater than 4 wt. % in the cumene hydroperoxide decomposition mass.

20. A cumene hydroperoxide decomposition mass produced from the reaction of cumene hydroperoxide with an acid catalyst in a non-isothermal manner having acetone present in excess by an amount of 10 to 100 percent acetone relative to the amount of acetone produced during the reaction.